

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) Peptide characterized in that it consists consisting of the peptide sequence (I) below:

J¹-J²-J³-J⁴-J⁵-J⁶-Z⁷-U⁸-J⁹-J¹⁰-U¹¹-Arg-J¹³-J¹⁴-U¹⁵-Lys-Gly-X¹⁸-Gly-Thr-J²¹-Glu-J²³-J²⁴-U²⁵-J²⁶-J²⁷-J²⁸-U²⁹-J³⁰-J³¹-Arg-J³³-J³⁴-J³⁵-J³⁶-B³⁷-J³⁸-J³⁹-U⁴⁰-J⁴¹-J⁴²-J⁴³-U⁴⁴-J⁴⁵-J⁴⁶-J⁴⁷-J⁴⁸-J⁴⁹-Arg-J⁵¹-U⁵²-J⁵³-J⁵⁴-Asp-U⁵⁶-Lys-Ser-Z⁵⁹-Leu-J⁶¹-J⁶²-J⁶³-J⁶⁴-Z⁶⁵-J⁶⁶-J⁶⁷-U⁶⁸-J⁶⁹-J⁷⁰-J⁷¹-U⁷²-J⁷³-J⁷⁴-J⁷⁵ (I; SEQ ID NO: 15)

in which J, Z, U, X and B represent amino acids such that:

- the amino acids J are chosen, independently of one another, from natural amino acids or derivatives thereof, such that at least 50% of them are polar residues chosen from Arg, Asn, Asp, Cys, Gln, Glu, Gly, His, Lys, Orn, Pro, Ser, Thr and Tyr,
- the amino acids U are chosen from Ala, Cys, Gly, Ile, Leu, Met, Phe, Trp, Tyr and Val,
- the amino acid X¹⁸ is chosen, independently of the other amino acids of the sequence, from Ala, Asn, Cys, Gln, Gly, His, Ile, Leu, Met, Phe, Ser, Thr, Trp, Tyr and Val,
- the amino acid B³⁷ is chosen, independently of the other amino acids of the sequence, from Arg, Ala, Cys, Gly, Ile, Leu, Met, Phe, Trp, Tyr and Val,
- the amino acid Z⁷ is chosen, independently of the other amino acids of the sequence, from Asp and Glu,
- the amino acids Z⁵⁹ and Z⁶⁵ are chosen, independently, from Glu, Asp, Lys or Arg, the superscripts of J, Z, U, X and B representing the position of these amino acids in said

sequence.

2. (Original) Peptide according to Claim 1, in which the amino acids J are chosen, independently of one another, from Ala, Arg, Asn, Asp, Cys, Gln, Glu, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Tyr and Val, such that at least 50% of them are polar residues chosen from Arg, Asn, Asp, Gln, Glu, Gly, His, Lys, Pro, Ser and Thr.

3. (Original) Peptide according to Claim 1, in which the amino acids U and B of the sequence (I) are chosen according to one of the examples a) to j) disclosed in table 1 below:

	U ⁸	U ¹¹	U ¹⁵	U ²⁵	U ²⁹	B ³⁷	U ⁴⁰	U ⁴⁴	U ⁵²	U ⁵⁶	U ⁶⁸	U ⁷²
Ex a)	Val	Leu	Met	Ile	Leu	Arg	Ile	Tyr	Leu	Leu	Val	Leu
Ex b)	Ala	Ile	Ile	Ile	Leu	Arg	Ile	Tyr	Leu	Leu	Ile	Leu
Ex c)	Ala	Ile	Ile	Ile	Leu	Arg	Ile	Tyr	Leu	Leu	Met	Val
Ex d)	Ala	Leu	Met	Leu	Leu	Arg	Ile	Tyr	Leu	Leu	Ile	Met
Ex e)	Ala	Leu	Met	Ile	Ile	Arg	Val	Tyr	Leu	Leu	Ile	Met
Ex f)	Ala	Leu	Met	Ile	Ile	Arg	Ile	Phe	Leu	Leu	Ile	Met
Ex g)	Ala	Leu	Met	Ile	Val	Arg	Ile	Phe	Leu	Leu	Ile	Phe
Ex h)	Val	Leu	Met	Ile	Leu	Arg	Ile	Phe	Leu	Leu	Ile	Met
Ex i)	Ala	Leu	Met	Ile	Leu	Arg	Ile	Phe	Leu	Leu	Ile	Met
Ex j)	Ala	Leu	Met	Ile	Leu	Arg	Ile	Tyr	Leu	Leu	Ala	Ala
Ex k)	Val	Leu	Met	Ile	Leu	Arg	Ile	Tyr	Leu	Leu	Val	Leu
Ex l)	Val	Leu	Met	Ile	Leu	Arg	Ile	Phe	Leu	Leu	Val	Leu

(Ex = example)

4. (Currently Amended) Peptide consisting of a sequence chosen from the sequences of SEQ ID No. 1 to SEQ ID No. 10 of the sequence listing in the appendix.

5. (Currently Amended) Peptide consisting of the sequence of SEQ ID No. 1 of the sequence listing in the appendix.

6. (Currently Amended) Peptide according to any one of Claims 1 to 5 Claim 1, also comprising, wherein a tripeptide sequence is linked to the N-terminal end of the sequence (I), wherein said tripeptide sequence is selected from the group consisting of an amino acid sequence chosen from Gly-Ser-Cys-, Gly-Ser-Thr-, Gly-Ser-Pro-, Gly-Ser-Ser-, Gly-Ser-Gly-, and Gly-Ser-Gln-.

7. (Currently Amended) Peptide according to any one of Claims 1 to 5 Claim 1, also comprising, wherein a tetrapeptide sequence is linked to the N-terminal end of the sequence (I), wherein said tetrapeptide sequence is selected from the group consisting of an amino acid sequence chosen from Gly-Ser-Gly-Cys- (SEQ ID NO: 17), Gly-Cys-Gly-Ser- (SEQ ID NO: 18), Gly-Ser-Gly-Ser- (SEQ ID NO: 19), and Gly-Cys-Gly-Cys- (SEQ ID NO: 20) or Gly-Cys-Gly-Ser-.

8. (Currently Amended) Peptide consisting of the sequence of SEQ ID No. 11 or SEQ ID No. 12 of the sequence listing in the appendix.

9. (Currently Amended) Peptide consisting of the sequence of SEQ ID No. 13 or SEQ

ID No. 14 of the sequence listing in the appendix.

10. (Currently Amended) Process for producing a peptide according to ~~any one of~~ ~~Claims 1 to 9~~ Claim 1, said process comprising solid-phase chemical synthesis of said peptide.

11. (Currently Amended) Process for producing a peptide according to ~~one of Claims 1 to 9~~ Claim 1, in culture, said process comprising ~~the following steps~~:

- a) preparing a cDNA comprising a basic sequence encoding said peptide,
- b) inserting said cDNA into a suitable expression vector,
- c) transforming a suitable host cell with said vector into which the cDNA has been inserted, for replication of the plasmid,
- d) producing said peptide by translation of said cDNA in said host cell, and
- e) recovering the synthesized peptide.

12. (Original) Process according to Claim 11, in which the vector is a plasmid.

13. (Original) Process according to Claim 11, in which the vector is the vector pGEX-2T.

14. (Currently Amended) Process according to Claim 11, ~~12 or 13~~, in which the host cell is *E. coli*.

15. (Currently Amended) Chemical assembly with affinity for a phospholipid, characterized in that it comprises comprising at least two peptides as defined in ~~Claims 1 to 9~~ Claim 1, which may be identical or different, said peptides being linked to one another.

16. (Currently Amended) Chemical assembly according to Claim 15, in which at least one of the peptides is ~~one of the peptides defined in Claim 4~~ a peptide consisting of a sequence chosen from the sequences of SEQ ID No. 1 to SEQ ID No. 10.

17. (Currently Amended) Use of A method for covering a biomaterial comprising contacting said biomaterial with a peptide according to Claim 1 any one of Claims 1 to 9, for covering a biomaterial.

18. (Currently Amended) Use of A method for producing a filter for trapping activated circulating blood cells immobilizing a peptide according to Claim 1 said filter any one of Claims 1 to 9, in the production of a filter for trapping activated circulating blood cells.

19. (Currently Amended) Labelling compound comprising a peptide as defined in ~~any one of Claims 1 to 9~~ Claim 1, coupled to a labelling molecule or to nanoparticles that are dense in electron microscopy.

20. (Currently Amended) Labelling compound characterized in that it comprises comprising an assembly as defined in Claim 15 or 16, coupled to a labelling molecule or to nanoparticles that are dense in electron microscopy.

21. (Currently Amended) Compound according to Claim 19 ~~or~~ 20, in which the labelling molecule is a fluorescent molecule.

22. (Currently Amended) Compound according to Claim 19 ~~or~~ 20, in which the labelling molecule consists of one of the partners of the avidin-biotin system.

23. (Currently Amended) Compound according to Claim 19 ~~or~~ 20, in which the labelling molecule is a radio element.

24. (Currently Amended) Compound according to Claim 19 ~~or~~ 20, in which the labelling molecule is a contrast agent in magnetic resonance imaging.

25. (Currently Amended) Compound according to Claim 19 ~~or~~ 20, in which the labelling molecule is technetium.

26. (Currently Amended) Compound according to Claim 19 ~~or~~ 20, in which the nanoparticles that are dense in electron microscopy are gold nanoparticles.

27. (Currently Amended) Diagnostic kit comprising a compound according to ~~either one of Claims 19 and 20~~ Claim 19.

28. (Original) Diagnostic kit according to Claim 27, also comprising a suitable reagent for detecting said labelling molecule.

29. (Currently Amended) Kit for analysing and detecting negative charges at the surface of cells, characterized in that it comprises a peptide according to ~~any one of Claims 1 to 9~~ Claim 1.

30. (Currently Amended) Kit for analysing and detecting negative charges at the surface of cells, characterized in that it comprises an assembly according to Claim 15 ~~or 16~~.

31. (Currently Amended) Kit for analysing and detecting microvesicules in the blood, characterized in that it comprises a peptide according to ~~any one of Claims 1 to 9~~ Claim 1.

32. (Currently Amended) Kit for analysing and detecting microvesicules in the blood, characterized in that it comprises an assembly according to Claim 15 ~~or 16~~.

33. (Currently Amended) Kit according to Claim 29 ~~or 31~~, in which the peptide is coupled to a label.

34. (Currently Amended) Kit according to Claim 30 ~~or 32~~, in which the assembly is coupled to a label.

35. (Currently Amended) Filter for dialysing activated circulating blood cells, said filter being characterized in that it comprises a peptide according to ~~any one of claims 1 to 9~~ Claim 1.

36. (New) Peptide according to Claim 4, wherein a tripeptide sequence is linked to the N-terminal end of the sequence (I), wherein said tripeptide sequence is selected from the group consisting of Gly-Ser-Cys-, Gly-Ser-Thr-, Gly-Ser-Pro-, Gly-Ser-Ser-, Gly-Ser-Gly-, and Gly-Ser-Gln-.

37. (New) Peptide according to Claim 4, wherein a tetrapeptide sequence is linked to the N-terminal end of the sequence (I), wherein said tetrapeptide sequence is selected from the group consisting of Gly-Ser-Gly-Cys-, Gly-Cys-Gly-Ser-, Gly-Ser-Gly-Ser-, Gly-Cys-Gly-Cys- or Gly-Cys-Gly-Ser-.

38. (New) Peptide according to Claim 5, wherein a tripeptide sequence is linked to the N-terminal end of the sequence (I), wherein said tripeptide sequence is selected from the group consisting of Gly-Ser-Cys-, Gly-Ser-Thr-, Gly-Ser-Pro-, Gly-Ser-Ser-, Gly-Ser-Gly-, and Gly-Ser-Gln-.

39. (New) Peptide according to Claim 5, wherein a tetrapeptide sequence is linked to the N-terminal end of the sequence (I), wherein said tetrapeptide sequence is selected from the group consisting of Gly-Ser-Gly-Cys-, Gly-Cys-Gly-Ser-, Gly-Ser-Gly-Ser-, Gly-Cys-Gly-Cys- or Gly-Cys-Gly-Ser-.

40. (New) Labelling compound comprising an assembly as defined in Claim 16, coupled to a labelling molecule or to nanoparticles that are dense in electron microscopy.

41. (New) Compound according to Claim 40, in which the labelling molecule is a

fluorescent molecule.

42. (New) Compound according to Claim 40, in which the labelling molecule consists of one of the partners of the avidin-biotin system.

43. (New) Compound according to Claim 40, in which the labelling molecule is a radio element.

44. (New) Compound according to Claim 40, in which the labelling molecule is a contrast agent in magnetic resonance imaging.

45. (New) Compound according to Claim 40, in which the labelling molecule is technetium.

46. (New) Compound according to Claim 40, in which the nanoparticles that are dense in electron microscopy are gold nanoparticles.

47. (New) Diagnostic kit comprising a compound according to Claim 40.

48. (New) Diagnostic kit according to Claim 47, also comprising a suitable reagent for detecting said labelling molecule.

49. (New) Kit for analysing and detecting negative charges at the surface of cells, characterized in that it comprises an assembly according to Claim 16.

50. (New) Kit for analysing and detecting microvesicles in the blood, characterized in that it comprises an assembly according to Claim 16.

51. (New) Kit according to Claim 50, in which the assembly is coupled to a label.

52. (New) Compound according to Claim 20, in which the labelling molecule is a fluorescent molecule.

53. (New) Compound according to Claim 20, in which the labelling molecule consists of one of the partners of the avidin-biotin system.

54. (New) Compound according to Claim 20, in which the labelling molecule is a radio element.

55. (New) Compound according to Claim 20, in which the labelling molecule is a contrast agent in magnetic resonance imaging.

56. (New) Compound according to Claim 20, in which the labelling molecule is technetium.

57. (New) Compound according to Claim 20, in which the nanoparticles that are dense in electron microscopy are gold nanoparticles.

58. (New) Diagnostic kit comprising a compound according to Claim 20.

59. (New) Diagnostic kit according to Claim 58, also comprising a suitable reagent for detecting said labelling molecule.

60. (New) Kit according to Claim 31, in which the peptide is coupled to a label.

61. (New) Kit according to Claim 32, in which the assembly is coupled to a label.